PROCEEDINGS

OF THE

AMERICAN PHILOSOPHICAL SOCIETY.

VOL. V. JANUARY—JUNE, 1853. No. 49.

Stated Meeting, January 7.

Present, twenty-four members.

Judge KANE, Vice-President, in the Chair.

The result of the annual election for officers of the Society, held this day, was reported as follows:—

President.

Franklin Bache, M.D.

Vice-Presidents.

A. Dallas Bache, LL.D.
Hon. John K. Kane,
Robley Dunglison, M.D.

Secretaries.

John F. Frazer,
Charles B. Trego,
E. Otis Kendall,
Frederick Fraley.

Counsellors for Three Years.

Isaac Hays. M.D.
Charles D. Meigs, M.D.
Henry Vethake,
Jacob G. Morris.

Curators.

Franklin Peale,
John C. Cresson,
M. Fisher Longstreth.

Treasurer.

Charles B. Trego.

The chair was then taken by Dr. Franklin Bache, the President elect.

Letters were read:—

From the Hon. John P. Kennedy, Secretary of the Navy, acknowledging the receipt of the resolutions passed at the last meeting; and expressing his gratification at the action of the Society in relation to the recommendations in his late report, with regard to the Expedition to the Arctic regions, and the furtherance of scientific inquiry:—

From Don Severiano Moraleda, dated Cadiz, Nov. 20, 1852, in relation to a donation for the Library of the Society, from the Director of the Hydrographic Department, at Madrid:—

From Don Jorge Lasso de la Vega, dated Direccion de Hidrografia, Madrid, October 19, 1852, announcing a donation of maps, charts and books, from that Department to the Society, with a catalogue of the same: and—

From the Royal Institution, dated Albemarle street, London, Nov. 30, 1852, accompanying a donation for the Library, and requesting that copies of the publications of the Society may be presented to the Royal Institution.

The following donations were announced:—

FOR THE LIBRARY.

Mémoires de l'Académie Impériale des Sciences de St. Petersbourg. VI. Série. Sciences Mathematiques, Physiques et Naturelles. Tome VIII. Seconde Partie. Sciences Naturelles. Tome VI. livraisons 3, 5, 6. St. Petersbourg, 1849. 4to.—*From the Imperial Academy of Sciences, St. Petersburg.*

Mémoires presentés à l'Académie Impériale des Sciences de St. Petersbourg, par divers Savants, et lus dans ses assemblées. Tome VI. livr. 2, 3. St. Petersbourg, 1848, 1849. 4to.—*From the same.*

Stellarum Fixarum imprimis duplicium et multiplicium positiones mediæ, pro epocha, 1830, 0. Auctore F. G. W. Struve. St. Petersburg, 1852. Folio.—*From the same.*

Sur les Dimensions des Anneaux de Saturne: par M. Otto Struve. St. Petersburg, 1852. 4to.—*From the same.*

Resultats des Operations Geodésiques de M. M. G. Fuss, Sawitsch et

Sabler; executées en 1836, 1837, dans la Province Caucasienne. Par M. W. Struve. 4to.—*From the same.*

Exposé Historique des travaux executés jusqu' à la fin de l'année 1851, pour la Mesure de l'arc du Meridien entre Fuglænes, 70° 40′, et Ismail, 45° 20′. Par W. Struve, Directeur de l'Observatoire Central de Russie. Suivi de deux Rapports de M. G. Lindhagen, Astronome de l'Observatoire Central, sur l'Expedition de Finnmarken, en 1850, et sur les Operations de Lapponie, executées en 1851. St. Petersburg, 1852. 4to.—*From the same.*

Messungen zur Bestimmung des Höhenunterschieds zwischen den Schwarzen und Caspischen Meere; von G. Fuss, Sawitsch und Sabler, 1836, 1837. St. Petersbourg, 1849. 4to.—*From the same.*

Transactions of the Royal Society of Edinburgh. Vol. XX. Part 3: for the session 1851, 1852. Edinburgh. 4to. Proceedings of the same. Session 1851, 1852. Vol. III. No. 42. Edinburgh. 8vo.—*From the Society.*

The Quarterly Journal of the Geological Society. No. 32. Vol. VIII. Part 4. Nov. 1, 1852. London. 8vo.—*From the Society.*

Bulletin de la Société de Geographie. IV. Série. Tomes II. III. Paris, 1851, 1852. 8vo.—*From the Society.*

Annales des Mines. V. Série. Tome I. 2 livraison de 1852. Paris. 8vo.—*From the Engineers of l'Ecole des Mines.*

The American Journal of Science and Arts. Second Series. Vol. XV. No. 43. Jan. 1853. New Haven. 8vo.—*From the Editors, Professors Silliman & Dana.*

On the Siliceous Bodies of the Chalk and other Formations, in reply to Mr. J. Toulmin Smith. By J. S. Bowerbank, F. R. S. G. S. &c. 1847.—Microscopical Observations on the Structure of the *Pterodactylus Giganteus* and other Fossil Animals. By the same, 1848:—On a Siliceous Zoophyte, *Alcyonites Parasiticum.* By the same, 1849:—On the Pterodactyles of the Chalk Formation. By the same, 1851. London. 8vo.—*From the Author.*

Address to the British Association: by Col. Edward Sabine, R. A. Treasurer and Vice-president of the Royal Society, 1852. 8vo.—*From the Author.*

A Discourse on the Life and Character of Daniel Webster. By H. A. Boardman, D.D. Philadelphia, 1852. 8vo.—*From the Author.*

Letter to Lord Mahon, being an Answer to his Letter addressed to

the Editor of Washington's Writings. By Jared Sparks. Boston, 1852. 8vo.—*From the Author.*

Report of Lieut. Col. Graham, on the subject of the Boundary Line between the United States and Mexico. August, 1852. Washington. 8vo.—*From the Author.*

Conspectus Generum Avium: Auctore Carlo Luciano Bonaparte. Leyden, 1850. 8vo.—*From George Ord.*

A Compilation of the Registers of the Army of the United States, from 1815 to 1837 inclusive. By William A. Gordon, of the War Department. Washington, 1837. 8vo.—*From Major Hartman Bache.*

Cavalry Tactics. 3 vols. Printed by order of the War Department. Washington, 1841.—*From the Adjutant General, United States Army.*

Instruction for Heavy Artillery: prepared by a Board of Officers for the use of the Army of the United States. Washington, 1851.—Instruction for Mountain Artillery: by a Board of Army Officers. Washington, 1851.—Instruction for Field Artillery, Horse and Foot; compiled by a Board of Artillery Officers. Baltimore, 1845.—Same; translated from the French, and arranged for the Service of the United States, by Robert Anderson, Captain United States Army. Philadelphia, 1839.—The Sword Exercise, arranged for Military Instruction, by Brevet Major Henry C. Wayne, United States Army. Washington, 1850.—Manual of Bayonet Exercise; prepared for the use of the Army of the United States. By George B. M'Clellan, Brevet Captain United States Army. Philadelphia, 1852.—School of Cavalry: or a System of Organization, Instruction, and Manœuvres, proposed for the Cavalry of the United States: by William Theobald Wolfe Tone, Lieutenant United States Artillery. Georgetown, D. C. 1824.—*From the same.*

Regulations for the Uniform and Dress of the Army of the United States. June, 1851. From the original text and drawings in the War Department. Philadelphia, 1851. Folio.—*From the same.*

The Practice of Courts Martial. By Alexander Macomb, Major General of the Army of the United States. New York, 1841. 8vo.—*From the same.*

Hints on the Medical Examination of Recruits for the Army: and on the Discharge of Soldiers from Service on Surgeon's Certificate. Adapted to the Service of the United States. By Thomas Hen-

derson, M. D. Assistant Surgeon United States Army. Philadelphia, 1840. 8vo.—*From the same.*

Prof. Frazer, from the Committee on Dr. Kane's proposed Expedition to the Arctic regions, reported a Memorial to Congress on that subject, which the Committee recommend for adoption by the Society. The Memorial was read, considered and adopted, and was ordered to be signed by the proper officers and forwarded to both Houses of Congress.

The Rev. Dr. Boardman exhibited to the Society a specimen of *rock-crystal*, from the Alps, of unusual clearness and beauty. It is cut and polished in a graceful form and manner. Length, $4\frac{1}{2}$ inches; diameter, $2\frac{1}{2}$ by 2 inches.

Judge Kane referred to the experimental trial of the caloric-engine vessel, recently made at New York. He had been assured by gentlemen who were on board the vessel, a clipper-built ship of about 2000 tons burthen, that the engine, on a first trial, and under unfavourable circumstances, propelled the vessel at a rate of more than six miles per hour: the maximum speed, with the wind, was fifteen miles per hour. The amount of fuel consumed during the trip was between one-quarter and one-fifth of that required for a steam-engine of the same power; and a great advantage also results from the lesser space occupied by the caloric-engine, and the greater safety from fire.

The Judge remarked that, if there was no mistake in all this, it would seem that the time anticipated by scientific mechanics had now come, when the steam-engine would become one of the things that *were*.

Mr. Justice said that the beautiful specimen of rock-crystal, shown this evening, reminded him of a phenomenon recently observed by him in his microscopical observations—and asked for information on the subject. A portion of the ordinary silvering solution was evaporated, and the crystals, while on the *hot* slide of the microscope, exhibited no evidence of polarization of light; but on cooling the ordinary display of beautiful colours appeared.

Mr. Trego, from the Committee of Publication, presented

the Annual Report of that Committee, together with a statement of their Treasurer's Accounts, which were read.

Mr. Fraley, from the Committee appointed to consider alterations in the Laws of the Society, presented the following Report:—

The Committee appointed to consider and report whether any, and if any, what alterations or amendments should be made in the Laws of the Society, have attended to that duty, and respectfully present, herewith, such amendments and alterations as in their judgment will be found beneficial: And in order that the same may be properly and conveniently placed before the members for consideration, they recommend the adoption of the following resolutions:—

Resolved, That the Laws of the Society, as proposed to be altered and amended by the Report of the Committee, be printed under their direction, for the use of the members of the Society.

Resolved, That the proposed amendments shall be considered by the Society, as in committee of the whole, at the next stated meeting; and that the Laws, as they may be proposed for adoption by the Report of the Committee of the Whole, shall be fairly written out for the final action of the Society thereon, agreeably to the provisions of the existing laws.

The present reading of the reported amendments was, on motion, dispensed with,—and the resolutions were adopted.

Dr. Boardman inquired concerning a catalogue of the Society's library,—and explanation was made upon the subject by the President and the Librarian.

On motion of Judge Kane, a Committee was appointed to consider and report upon some plan for the better accommodation and more convenient arrangement of the Society's Library:—the Committee consists of Judge Kane, Mr. Trego and Dr. Boardman.

Stated Meeting, January 21.

Present, twenty-three members.

Dr. Franklin Bache, President, in the Chair.

Letters were read:—

From Baron Joseph Von Hammer Purgstall, dated Vienna, 7th Nov. 1851, accompanying a donation for the Library, and in relation to an exchange of the publications of the Imperial Academy of Sciences at Vienna, and those of this Society: and—

From the Albany Institute, dated Albany, Jan. 11, 1853, announcing a donation for the Library, and acknowledging the receipt of certain Nos. of the Proceedings of this Society.

The following donations were announced:—

FOR THE LIBRARY.

Archives du Muséum d'Histoire Naturelle: publiées par les Professeurs Administrateurs de cet Etablissement. Tome V. liv. 4. Tome VI. liv. 1, 2. Paris. 4to.—*From the Museum.*

Catalogue Méthodique de la Collection des Mammifères;—de la Collection des Oiseaux, et des Collections annexées: par le Prof. Administrateur, M. Isidore Geoffroy de St. Hilaire, et les Aides Naturalistes, M. M. Florent Prevost et Pucheran. I. Partie. Paris, 1851. 8vo.—Catalogue Méthodique de la Collection des Reptiles, 2e livr. par le Prof. Administrateur, M. C. Dumeril, &c. Aide Naturaliste, M. Aug. Dumeril, &c. Paris, 1851. 8vo.—*From the same.*

Jahrbücher der Literatur. Bande 125 to 128 inclusive. Jan. Dec. 1849. Vienna. 8vo.—*From the Baron J. Von Hammer Purgstall.*

Rede des Präsidenten der Kaiserlichen Akad. der Wissenschaften, Freiherrn Von Hammer Purgstall, bei der feierlichen Eröffnung derselben am 2 Februar. 1848. 8vo.—*From the same.*

Journal of the Academy of Natural Sciences of Philadelphia. New Series. Vol. II. Part 3. Philadelphia. 4to.—*From the Academy.*

Transactions of the Albany Institute. Vol. II. Albany, 1833, 1852. 8vo.—*From the Institute.*

Collections of the Historical Society of Pennsylvania. Vol. I. No. 4. Nov. 1852. Philadelphia. 8vo.—*From the Society.*

Journal of the Franklin Institute. Third Series. Vol. XXV. No. 1. January, 1853. Philadelphia. 8vo.—*From the Institute.*

The American Journal of the Medical Sciences. No. XLIX. New Series. January, 1853. Philadelphia. 8vo.—*From Dr. Hays, Editor.*

The Medical News and Library. Vol. XI. No. 121. January, 1853. Philadelphia. 8vo.—*From Blanchard & Lea.*

Introductory Lecture to the Course of Chemistry, delivered in Jefferson Medical College, October 13, 1852. By Franklin Bache, M.D. Philadelphia. 8vo.—*From the Author.*

New Varieties of Gold and Silver Coins, Counterfeit Coins and Bullion: with Mint Values. Second Edition. By J. R. Eckfeldt and W. E. Dubois, Assayers of the Mint of the United States. To which is added a Brief Account of the Collection of Coins belonging to the Mint. Second Edition, enlarged: by W. E. Dubois. New York, 1851. 8vo.—*From the Author.*

The Astronomical Journal. No. 51. Vol. III. No. 3. January 6, 1852. Cambridge. 8vo.—*From Dr. B. A. Gould, jr. Editor.*

Dr. Kane announced to the Society that a communication has been received from the British Consul General, on the part of Sir Francis Beaufort, of the Hydrographic Office, announcing the wish of the Admiralty to co-operate, by suggestive and other material, in the object of the proposed American Expedition to the Arctic regions,—and stated that the preparations for the expedition are in favourable train.

Mr. Trego was re-elected Librarian.

The following Standing Committees were appointed:
Finance; Mr. Wagner, Mr. Fraley, Mr. Justice.
Hall; Judge Kane, Mr. F. Peale, Mr. Justice.
Library; Dr. Hays, Mr. Campbell, Mr. Ord.
Publication; Mr. Trego, Dr. Elwyn, Prof. Frazer.

The catalogue of surviving members of the Society was read, from which it appears that the number on the list, on the first of January, 1853, was 363;—of whom are resident in the United States, 261,—and in foreign countries, 102.

The Society then proceeded to ballot for candidates for membership.

The letters read this evening from the Baron Von Hammer Purgstall, and from the Albany Institute, relative to an exchange of publications with this Society, were referred to the Librarian, with power to act.

The consideration of the Amendments to the Laws of the Society, reported from the Committee on that subject, was, on motion of Judge Kane, postponed to the next stated meeting.

All other business having been concluded, the ballot boxes were opened, and the following named gentlemen were declared by the presiding officer to be duly elected members of the Society:

A. L. Crelle, of Berlin.
C. F. Gauss, of Göttingen.
Augustin Cauchy, of Paris.
J. Liouville, of Paris.
Dr. J. G. Flügel, U. S. Consul at Leipsic.
Prof. O. M. Mitchell, of Cincinnati.
Robert M. Bird, M.D. of Philadelphia.
John L. Leconte, M.D. of Philadelphia.
Edward E. Law, of Philadelphia.
Capt. W. F. Lynch, U. S. Navy.
Hon. John P. Kennedy, Secretary of the Navy.
Major Alfred Mordecai, U. S. Army.

Stated Meeting, February 4.

Present, sixteen members.

Judge Kane, Vice-President, in the Chair.

Mr. Edward E. Law, Dr. John L. Leconte, and Mr. John Cassin, recently elected members, were presented to the presiding officer and took their seats.

Letters were read:—

From Major Alfred Mordecai, dated Washington Arsenal,

Jan. 29, 1853; from Edward E. Law, dated Walnut street, 29th Jan. 1853; from John L. Leconte, dated Philadelphia, Feb. 2, 1853,—severally acknowledging the receipt of notice of their election as members of the Society:—

From the Connecticut Historical Society, dated Hartford, Feb. 2, 1853; and from the Academy of Natural Sciences of Philadelphia, dated Feb. 2, 1853, returning thanks for the Proceedings of this Society, No. 48:—

From the Proprietors of the Bowditch Library, dated Boston, Jan. 29, 1853, acknowledging the receipt of the Transactions of this Society, Vol. X. Part 2; and of Nos. 44, 45, 46 of the Proceedings: and—

From Mr. George Parish, dated Ogdensburg, N. Y. 21st Jan. 1853, informing the Society, on the part of the heirs of the late David Parish, that the Society is welcome to remain in possession of the Collection of Coins and Medals deposited with them by said David Parish, with the exception of two pieces, which it is desired should be returned to George Parish.

The following donations were announced:—

FOR THE LIBRARY.

Biblioteca Maritima Española; obra postuma del Excmo. Señor Don Martin Fernandez de Navarrete, &c. &c. 2 vols. 8vo. Madrid, 1852.—*From the Hydrographic Department at Madrid.*

Diccionario Marino: Español-Ingles, y Ingles-Español; para el uso del Colegio Naval. Por Don Juan José Martinez de Espinosa y Tacon, Comandante General, &c. &c. 2 vols. 8vo. Madrid, 1849.—*From the same.*

Coleccion Completa de Tablas, para los usos de la Navegacion y Astronomia Nautica: por el Capitan Don José de Mendoza y Rios, &c. &c. Madrid, 1850. 4to.—*From the same.*

Esplicacion de las Tablas de Navegacion y Astronomia Nautica de Don José Mendoza y Rios. Por Don José Sanchez y Cerquero. Madrid, 1851. 4to.—*From the same.*

Almanaque Nautico, y Ephemérides Astronomicas, para los años de 1853 y 1854. Madrid. 8vo.—*From the same.*

Combate de Trafalgar. Vindicacion de la Armada Española: Por Don Manuel Marliani, Ex-Senador del Reino. Madrid, 1850. 8vo.—*From the same.*

Ordenanzas de Pesca, para los Provincias de Pontevedra y la Coruña, &c. Madrid, 1850. 4to.—*From the same.*

Catalogo de las Cartas, Planos, &c. pertenicientes a la Direccion de Hidrografia de Madrid. No. 14. 8vo.—*From the same.*

Charts and Maps of the Islands of Teneriffe, Fuerteventura, Lanzarote; the Western Coast of Africa, from Cape St. Paul to Formosa; the Bay of San Juan de Luz; Ria de Vigo; the Ports of Holmes' Hole, Zebu, Laguimanoc and Busainga, Batan, and the Bay of Nin and Mandao.—*From the same.*

Monthly Notices of the Royal Astronomical Society. Vol. XII. No. 4. London. 8vo.—*From the Society.*

Proceedings of the Boston Society of Natural History. Nov. 1852. Boston. 8vo.—*From the Society.*

Proceedings of the Academy of Natural Sciences of Philadelphia. Vol. VI. No. 6. Nov. Dec. 1852. Philadelphia. 8vo.—*From the Academy.*

Report of a Geological Survey of Wisconsin, Iowa and Minnesota; and incidentally of a portion of Nebraska Territory; made under instructions from the United States Treasury Department. By David Dale Owen, United States Geologist. With a volume of Illustrations. Philadelphia, 1852. 4to.—*From the Hon. H. S. Geyer, U. S. Senate.*

Plans for the Artillery of the United States: drawn and engraved under the direction of Major Alfred Mordecai, of the Ordnance Department. Parts 1 to 13, inclusive.—*From Col. H. K. Craig, U. S. Ordnance Department.*

Arte de la Lengua Quichua: por el P. Diego de Torres Rubio, de la Compania de Jesus. Lima, 1700. 12mo.—*From Dr. Ruschenberger.*

Reprint of the Original Letters from Washington to Joseph Reed, during the American Revolution, referred to in the Pamphlets of Lord Mahon and Mr. Sparks. By William B. Reed. Philadelphia, 1852. 8vo.—*From W. B. Reed, Esq.*

A Tribute to the Memory of Peter Collinson;—with some notice of Dr. Darlington's Memorials of John Bartram and Humphrey Marshall. Second Edition. By William H. Dillingham. Philadelphia, 1852. 8vo.—*From the Author.*

Report of the Committee of the House of Representatives of the United States, to whom was referred the Memorial of Dr. W. T. G. Morton, asking remuneration for the Ether Discovery. Washington, 1852. 8vo.—*Donor unknown.*

The Astronomical Journal, No. 52. Cambridge, Jan. 27, 1852. 4to.—*From Dr. B. A. Gould, jr., Editor.*

The Plough, the Loom and the Anvil. Vol. V. No. 6. Dec. 1852. New York and Philadelphia. 8vo.—*From F. G. Skinner, Editor.*

Prof. Frazer announced the death of Sears C. Walker, a member of this Society, on the 30th inst. at Cincinnati, in the 48th year of his age.

Remarks upon the scientific labours of Mr. Walker were made by Prof. Frazer and Mr. Justice.

On motion, Prof. Frazer was appointed to prepare an obituary notice of the deceased member.

Mr. Justice offered, for the inspection of the members, a "Crystallotype" of the Moon, taken by John A. Whipple, of Boston, through the great refracting telescope at Cambridge, and presented to Mr. Justice by Marcus A. Root, daguerreotypist of this city.

This picture of the moon, small as it is, being only 5 inches long, by 2½ broad, is so perfectly distinct that all the well known localities on the line of partial illumination, where the shadows are more fully projected, can be easily recognised.

In tracing this line from north to south, we notice on the dark plain of Mare Imbrium, the fully developed ring-mountains of Archimedes, Aristillus and Autolycus, with the whole group lying within the curve of the Apennines, whose dark shadows are contrasted with the enlightened side of the range. Continuing on nearly the same meridian, south of the equator, the large circular expanse of Ptolemy, united to Alphons, and Arzachel with its central hills, are all finely indicated; while Hipparchus, Thebit, and the surrounding pit-formations which exist throughout these mountain regions, form almost as beautiful a display as when viewed through the telescope. The effect is much increased when the picture is viewed through a low magnifying power.

When we consider the small number of persons who have the opportunity of examining the moon through a good telescope, we are able more fully to appreciate an art which can thus so graphically transfer the likeness of this planet from the heavens to a parlour table, for the convenience of our investigations in the study of selenography.

Mr. Dubois laid before the Society a specimen of Australian gold, in grains, from Mount Alexander.

Until within a few months, no specimen of gold from Australia could be obtained by the mint, except by sending to the London market. Recently, however, there have been four parcels brought hither for coinage, amounting to about $14,000. The sample herewith shown is from one of those parcels, and is from the well-known mining district of *Mount Alexander*, about 70 miles north of Port Philip, and 500 miles south-west from Sydney. The grains are quite different in shape from those of California, being more globular or shot-like; and the proportion of accompanying oxide of iron, and extraneous substances, is found to be less by the loss in melting. That loss scarcely exceeds 1½ per cent. on the average, while the best shipments of gold from California will average double that loss. There is also a conspicuous difference in the amount of silver alloy present. The particles from Australia varied from 960 to 966 thousandths in fineness; the California gold may be said to average 875 to 885; making a difference in favour of the Australian gold, of about ten per cent. in value.

The value of the latter, in the unmelted grains, may be stated at $19.67 per ounce; after melting, twenty dollars per ounce, within a few cents.

Mr. Fraley mentioned, in connection with this subject, that a workman in the chemical manufactory of Mr. Lennig, in this city, had obtained gold by washing from the sand on the bank of the Delaware river, near Bridesburg, about five miles above Philadelphia. The gold thus obtained, by a day's labour, was worth about twenty-five cents.

On motion of Mr. Trego, it was resolved that the Secretary be instructed to communicate to Mr. George Parish, the thanks of the Society for the liberality of his family in relinquishing their claim to the collection of coins and medals deposited with the Society by the late David Parish, in the year 1816;—and that he be directed to return to Mr. George Parish, the two medals mentioned in his letter read this evening, which the family wish to retain.

Mr. Trego, as Reporter, presented No. 48 of the Proceedings of the Society, recently published.

The Society then proceeded to the stated business of the meeting,—the consideration of the proposed amendments to the Laws of the Society,—and resolved itself into a committee of the whole, Judge Kane in the chair, for the purpose of considering the said amendments.

After some time the Committee rose, and the Chairman reported the draft submitted to them, with sundry amendments, which report was agreed to;—and it was then ordered that the further consideration of the amendments be postponed until the next stated meeting of the Society.

Stated Meeting, February 18.

Present, seventeen members.

JUDGE KANE, Vice-President, in the Chair.

Letters were read:—

From the Hon. John P. Kennedy, dated Washington, Feb. 5, 1853, acknowledging the receipt of notice of his election to membership of this Society:—

From the Royal Academy of Sciences at Stockholm, dated Oct. 30, 1852; and from the Royal Society of Sciences at Upsal, without date,—accompanying donations to this Society,—and acknowledging the receipt of Transactions and Proceedings:—

From the Connecticut Historical Society, dated Hartford, August 14, 1852; from Col. H. K. Craig, dated Ordnance Office, Washington, Feb. 9, 1853; from Wm. B. Reed, Esq. at the request of Lord Mahon, dated Feb. 16;—announcing donations for the Library:—

From the American Antiquarian Society, dated Worcester, Mass. Feb. 8, 1853; and from the New Jersey Historical Society, dated Newark, Feb. 12, 1853,—returning thanks for No. 48 of the Proceedings: and—

From Mr. George Parish, dated Ogdensburg, N. Y. 13th Feb. 1853, acknowledging the receipt of the two medals forwarded to him by the Society, as directed at the last meeting.

The following donations were announced:—

FOR THE LIBRARY.

Acta Regiæ Societatis Scientiarum Upsaliensis. 3d Series. Vol. I. Part 1, 1851. Upsal. 4to.—*From the Society.*

Kongl. Vetenskaps—Akademiens Handlingar, för år 1850. Afd. 1, 2. Stockholm, 1851.—8vo.—*From the Royal Academy of Sciences at Stockholm.*

Ofversigt af Kongl. Vetenskaps—Akademiens Förhandlingar, 1851. Stockholm. 8vo.—*From the same.*

Arsberättelse om Framstegen i Kemi, under år 1849; af L. F. Svanberg.

„ om Botaniska Arbeten, &c. för år 1849; af J. E. Wikström.

„ om Framstegen i Insecternas, &c. för år 1849, 1850; af C. H. Boheman.

„ om Technologiens Framsteg, 1847, 1848, 1849; af J. E. Pasch.

Berättelse om Framstegen Molluskernas, &c. under åren 1845—1849; af S. Loven.

„ om Framstegen i Fysik, under år 1850; af E. Edlund.—*From the same.*

Mittlere Oerter von 12,000 Fix—Sternen, für den Anfang von 1836, abgeleitet aus den Beobachtungen auf der Hamburger Sternwarte, von Carl Rümker. 3 Abth. die 13 bis 18 stunde enthaltend: 4 Abth. erste hälfte, 18 bis 21 stunde: 2 hälfte, 22 und 23 stunde elthaltend. Hamburg, 1846, 1849, 1852. 4to.—*From the Author.*

Verhandelingen der Eerste Klasse van het Koninklyk—Nederlandsche Instituut van Wetenschappen, Letterkunde en Schoonen Kunsten te Amsterdam. Derde Reeks. 5 Deel. Amsterdam, 1852. 4to.—*From the Royal Netherlands Institute of Science, &c.*

Tijdschrift voor de Wis—en Natuurkundige Wetenschappen, uitgegeven door de Eerste Klasse van het Koninklijk Nederlandsche Instituut, &c. V. Deel. Afl. 1, 2, 3. Amsterdam, 1851-2. 8vo.—*From the same.*

Jaarboek van het Koninklijk Nederlandsche Instituut, &c. voor 1851. Amsterdam. 8vo.—*From the same.*

Memorie della Reale Academia delle Scienze di Torino. Serie Se-

conda. Tomo XII. Torino, 1852. 4to.—*From the Royal Academy of Sciences at Turin.*

Journal of the Royal Geographical Society of London. Vol. XXII. London, 1852. 8vo.—*From the Society.*

Notices of the Meetings of the Members of the Royal Institution of Great Britain: Part 2. July, 1851—July, 1852. And List of the Members, Officers, &c. of the Royal Institution, with the Report of the Visitors, for the year 1851. London. 8vo.—*From the Royal Institution.*

Monthly Notices of the Royal Astronomical Society. Vol. XIII. No. 1. Nov. 12, 1852. London. 8vo.—*From the Society.*

Quarterly Journal of the Chemical Society. No. XIX. Oct. 1852. London. 8vo.—*From the Society.*

Proceedings of the Boston Society of Natural History. Dec. 1852. Boston. 8vo.—*From the Society.*

The Public Records of the Colony of Connecticut, from 1636 to 1677. 2 vols. 8vo. Transcribed and published in accordance with a Resolution of the General Assembly. By J. Hammond Trumbull, A.M. Cor. Sec. Conn. Hist. Society, &c. &c. Hartford, 1850, 1852.—*From the Connecticut Historical Society.*

Tribute to Gallaudet: A Discourse in commemoration of the Life, Character and Services of the Rev. Thomas H. Gallaudet, LL.D. delivered before the citizens of Hartford, Jan. 7, 1852: With an Appendix, containing a History of Deaf Mute Instruction and Institutions,—and other Documents. By Henry Barnard. Hartford. 1852, 8vo.—*From the same.*

Smithsonian Contributions to Knowledge.—Memoir on the Extinct Species of American Ox. By Joseph Leidy, M.D. Washington, 1852. 4to.—*From the Smithsonian Institution.*

Journal of the Franklin Institute. Third Series. Vol. XXV. No 2. Feb. 1853. Philadelphia. 8vo.—*From the Institute.*

Letter to Jared Sparks, Esq. being a Rejoinder to his "Reply to the Strictures of Lord Mahon and others, on the mode of editing the Writings of Washington." By Lord Mahon. London, 1852. 8vo.—*From the Author.*

Artillery for the U. S. Land Service, as devised and arranged by the Ordnance Board. With Plates. Prepared under the instructions of the Board of Ordnance; by Brevet Major Alfred Mordecai, of the Ordnance Department. Washington, 1849.—*From Col. H. K. Craig, U. S. Army.*

Official Army Register, for 1853. Published by order of the Secretary of War. Washington, 1853.—*From Major Hartman Bache.*

The Medical News and Library. Vol. XI. No. 122. Feb. 1853. Philadelphia. 8vo.—*From Blanchard & Lea.*

Eighteenth Annual Report of the Trustees of the Philadelphia Gas Works, to the Select and Common Councils of the City of Philadelphia; Jan. 28, 1853. 8vo.—*From F. Fraley, Esq.*

The Astronomical Journal, No. 53. Feb. 11, 1853. Cambridge. 4to.—*From Dr. B. A. Gould, jr., Editor.*

Mr. Trego announced the death of Mr. William Peter, a member of this Society, who died on the 6th inst., in the 64th year of his age:—And, on motion, Mr. Job R. Tyson was appointed to prepare an obituary notice of Mr. Peter.

The Society then proceeded to the stated business of the meeting, which was the consideration of the amendments proposed to the Laws of the Society,—the requisite notice to this effect having been given in the advertisements of the meeting.

A paper was read from the President of the Society, proposing amendments to the amendments.

A motion was made that the amendments be recommitted to the committee, which was not agreed to.

A motion was then made, that the further consideration of the subject be postponed to the next stated meeting of the Society, and that due notice to that effect be given by advertisement,—which motion was agreed to.

Stated Meeting, March 4.

Present, thirteen members.

Dr. Franklin Bache, President, in the Chair.

Letters were read:—

From the Secretary of l'Ecole des Mines, dated Paris, 2d Oct. 1852, accompanying a donation to this Society, and acknowledging the receipt of several numbers of the Proceedings:—

From the Royal Geographical Society of London, dated Waterloo Place, Oct. 14, 1852, returning thanks for No. 47 of the Proceedings: and—

From the Historical Society of Pennsylvania, dated Feb. 16, 1853, acknowledging the receipt of No. 48 of the Proceedings of this Society.

The following donations were announced:—

FOR THE LIBRARY.

Flora Batava, of Afbeelding en Beschrijving van Nederlandsche Gewassen. Afl. 168–172, inclusive. Amsterdam. 4to.—*From the King of the Netherlands.*

Annales des Mines. V. Série. Tome I. 3 livr. de 1852. Paris. 8vo.—*From the Engineers of l'Ecole des Mines.*

Quarterly Journal of the Chemical Society. No. XX. Jan. 1, 1853. London. 8vo.—*From the Society.*

Sixth Annual Report of the Board of Regents of the Smithsonian Institution, to the Senate and House of Representatives, showing the operations, expenditures and condition of the Institution during the year 1851; and the Proceedings of the Board of Regents, up to date. Washington, 1852. 8vo.—*From the Institution.*

Smithsonian Report:—On Recent Improvements in the Chemical Arts. By Prof. James C. Booth and Campbell Morfit. Washington, 1852. 8vo.—*From the same.*

Report on the Discipline and Management of the Convict Prisons, and Disposal of Convicts, 1851; with Notes on the Construction of Prisons, Treatment and Disposal of Juvenile Offenders, &c. &c. By Lieut. Col. Jebb, C. B. Surveyor General of Prisons, Chairman of the Directors, &c. London, 1852. 8vo.—*From Hon. J. R. Ingersoll.*

Information concerning the History, Condition and Prospects of the Indian Tribes of the United States: collected and prepared under the direction of the Bureau of Indian affairs. By Henry R. Schoolcraft, LL.D. Illustrated by S. Eastman, Capt. U. S. Army. Published by authority of Congress. Part III. Philadelphia, 1853. 4to.—*From Luke Lea, Esq. Commissioner of Indian Affairs.*

Eighteenth Annual Report of the Board of Directors of the Young

Men's Mercantile Library Association, of Cincinnati: Jan. 4, 1853. Cincinnati. 8vo.—*From the Association.*

Report of the Pennsylvania Hospital for the Insane, for the year 1852. By Thomas S. Kirkbride, M.D. Physician to the Institution. Philadelphia. 8vo.—*From the Author.*

A Sermon preached to the Congregation at the Essex street Church, Oct. 31, 1852, the Sabbath after the interment of the Hon. Daniel Webster. By Nehemiah Adams, D.D. Pastor of the Essex street Church, Boston. 2d Edition. Boston. 8vo.—*From Geo. C. Rand.*

The American Journal of Science and Arts. Second Series. Vol. XV. No. 44. March, 1853. New Haven. 8vo.—*From Prof. Silliman & Dana, Editors.*

The Plough, the Loom and the Anvil. Vol. VI. No. 2. Feb. 1853. New York and Philadelphia. 8vo.—*From F. G. Skinner, Editor.*

Mr. Trego announced the decease of Mr. Thomas Gilpin, a member of this Society, who died on the 3d inst. aged 77.

The Society then proceeded to the stated business of the meeting,—the further consideration of the proposed amendments to the Laws of the Society. The amendments, as reported from the committee of the whole, were read, and further amended,—and the amendments ordered to be reported to the next meeting of the Society, for further action,—of which due notice is to be given to the members.

Stated Meeting, March 18.

Present, thirty-one members.

Dr. Franklin Bache, President, in the Chair.

Dr. John Neill and Dr. John J. Reese, recently elected members, were presented and took their seats.

A letter was read from the Secretary of l'Ecole des Mines, dated Paris, 17th Nov. 1852, accompanying a donation for the Library of the Society.

The following donations were announced:—

FOR THE LIBRARY.

Monthly Notices of the Royal Astronomical Society: Vol. XIII. No. 2. Dec. 10, 1853. London. 8vo.—*From the Society.*

Annales des Mines. V. Serié. Tome II. 4 livr. de 1852. Paris. 8vo.—*From the Engineers of l'Ecole des Mines.*

Minutes of the Provincial Council of Pennsylvania, from the organization to the termination of the Proprietary Government: Published by the State. 10 vols. 8vo. Harrisburg, 1852.—*From the State of Pennsylvania.*

The Spirit of Rhode Island History: A Discourse delivered before the Rhode Island Historical Society, Jan. 17, 1853. By the Hon. Samuel Greene Arnold, Governor of Rhode Island. Providence. 8vo.—*From the R. I. Historical Society.*

Sixth Annual Report of the Regents of the University of the State of New York, on the State Cabinet of Natural History, and the Historical and Antiquarian Collection annexed thereto. Jan. 22, 1853:—And

Annual Report of the Trustees of the State Library of the State of New York; transmitted to the Legislature, Feb. 13, 1853. Albany. 8vo.—*From the Regents of the University of the State of New York.*

Journal of the Franklin Institute. Third Series. Vol. XXV. No. 3. March, 1853. Philadelphia. 8vo.—*From the Institute.*

A Discourse on the Life, Character and Services of Daniel Drake, M. D., delivered, by request, before the Faculty and Medical Students of the University of Louisville. Jan. 7, 1853. By S. D. Gross, M.D. Louisville. 8vo.—*From the Author.*

A Biographical Memoir of Samuel George Morton, M.D. Prepared by appointment of the College of Physicians of Philadelphia, and read before that body, Nov. 3, 1852. By George B. Wood, M.D. President of the College. Philadelphia. 8vo.—*From the Author.*

Eulogy on the Character and Services of the late Daniel Webster:—pronounced at the request of the Select and Common Councils of the City of Philadelphia, Jan. 18, 1853. By William H. Allen, LL.D. President of the Girard College for Orphans. Philadelphia. 8vo.—*From the Author.*

eport of a Committee in the Senate of the United States, on the

Discovery of Anæsthetic Agents. Mr. Walker, Chairman. Washington, Feb. 19, 1853. 8vo.—*From Hon. G. N. Fitch.*

The Medical News and Library. Vol. XI. No. 123. March, 1853. Philadelphia. 8vo.—*From Blanchard & Lea.*

The Plough, the Loom and the Anvil. Vol. VI. No. 3. March, 1853. New York and Philadelphia. 8vo.—*From F. G. Skinner, Editor.*

Description of the Remains of Extinct Mammalia and Chelonia, from Nebraska Territory, collected during the Geological Survey under Dr. D. D. Owen. By Joseph Leidy, M.D. of Philadelphia. 1852. 4to.—*From the Author.*

On the Extinct Species of American Ox. (Smithsonian Contributions to Knowledge, Vol. V.) Description of an Extinct Species of American Lion: *Felis atrox.*—A Memoir on the Extinct Dicotylinæ of America. (Trans. Am. Philos. Society, Vol. X.) By Joseph Leidy, M.D. of Philadelphia, 1852. 4to.—*From the same.*

Prof. Frazer announced the death of Dr. William E. Horner, a member of this Society, who died on the 13th inst., aged 60 years.

On motion of Mr. Cresson, Judge Kane was appointed to prepare an obituary notice of Mr. Thomas Gilpin, whose death was announced at last meeting:—And,

On motion of Dr. Harris, Prof. Samuel Jackson, M.D., was appointed to prepare an obituary notice of Dr. Horner.

Dr. Leconte presented a paper for the Transactions of the Society, "On the Classification of the Carabidæ of the United States," which was referred to Prof. Haldeman, Dr. Ruschenberger and Dr. Leidy, as a committee.

Dr. Kane called the attention of the Society to the preparations made for the proposed Expedition to the Arctic regions, which is about to set out under his command. Dr. K. described the peculiar provisions for the subsistence of the men; the sledges intended for their use in passing over the ice, &c., and laid before the Society papers in relation to the outfit of the expedition, consisting of letters from Sir John Richardson, Captain Ross, Admiral Parry, Col. Sabine and others.

On motion of Mr. Fraley, it was resolved that application be made by the Society to the Select and Common Councils of the City, and to the Directors of the Girard College, for the loan of such astronomical and magnetical instruments in their

possession, as may be useful in the observations intended to be made during Dr. Kane's proposed expedition to the Arctic regions.

The Society then proceeded to the consideration of the amendments of the Laws, as agreed to at the last meeting;—and said amendments, and the Laws as so amended, were finally adopted without dissent.

The following minute and resolution were offered by Judge Kane, and adopted:—

It having been announced that Dr. Franklin Bache, the President of the Society, and the Hon. Henry D. Gilpin and Dr. George B. Wood, members thereof, are about to visit Europe, with the purpose of making themselves familiar with the Scientific and Literary Institutions of Great Britain and the nations of the Continent;—it was

Resolved, That those gentlemen be severally requested to communicate, on behalf of the Society, with such of its foreign correspondents as they may have opportunity to visit;—and that the Secretary be instructed to invite for them such aid as may conduce to the attainment of the object they have in view.

Stated Meeting, April 1.

Present, twelve members.

Dr. Franklin Bache, President, in the Chair.

Letters were read:—

From B. Augustin Cauchy, dated Paris, 11th March, 1853, acknowledging the receipt of notice of his election as a member of this Society: and—

From the Geological Society of London, dated Somerset House, 4th Nov. 1852, returning thanks for No. 47 of the Proceedings.

The following donations were announced:—

FOR THE LIBRARY.

Quarterly Journal of the Geological Society: Vol. IX. Part 1. No. 33. Feb. 1, 1853. London. 8vo.—*From the Society.*

Monthly Notices of the Royal Astronomical Society. Vol. XIII. No. 3. Jan. 14, 1853. London. 8vo.—*From the Society.*

The Mississippi and Ohio Rivers:—Containing plans for the protection of the Delta from inundation; and investigations of the practicability and cost of improving the navigation of the Ohio and other rivers by means of reservoirs:—With an Appendix on the Bars at the mouths of the Mississippi. By Charles Ellet, Civil Engineer. Philadelphia, 1853. 8vo.—*From the Author.*

Message from the President of the United States, communicating a Report of Lieut. Meigs, with surveys, plans and estimates for supplying the cities of Washington and Georgetown with water. Feb. 22, 1853. Washington. 8vo.—*From Lieut. Meigs.*

Third Annual Report of the President and Directors of the Bellefontaine and Indiana Railroad Company, to the Stockholders. Jan. 12, 1853. Cleveland, O.—8vo.—*From W. Milnor Roberts, Esq. Engineer.*

Maps of Lake Erie, and of the West End of Lake Erie and Detroit river; from Surveys under the direction of the Topographical Bureau of the War Department. Washington, 1852.—*From Major Hartman Bache, U. S. A.*

Fifth Annual Report of the Board of Managers of the House of Refuge, with an Appendix. Philadelphia, 1853. 8vo.—*From James J. Barclay, Esq.*

The Astronomical Journal, No. 54. (Vol. III. No. 6.) March 15, 1853. Cambridge. 4to.—*From Dr. B. A. Gould, jr. Editor.*

The committee to which was referred Dr. Leconte's Paper on the Classification of the Carabidæ of the United States, made report, recommending its publication in the Transactions, which was ordered accordingly.

On motion of Prof. Frazer, he was excused from preparing a necrological notice of Sears C. Walker, deceased,—and A. Dallas Bache, LL.D., was requested to prepare such notice.

Dr. Boyé called the attention of the Society to the uncertainty of preserving papers, documents and coins in corner stones of buildings. On recently opening the corner stone of the present High School building of this city, erected 15½ years ago, in order to deposit its contents in the new building about to be erected, the papers &c., which had been deposited in a sealed glass jar, were found to be in a perfectly decayed condition, and so saturated with water, that about

an ounce separated by standing. The silver coins were also highly corroded by sulphur, particularly where in contact with a German silver piece and a couple of small notes, at that time so common, and known by the vulgar but now almost historical name of shin-plasters.

Stated Meeting, April 15.

Present, twenty-three members.

JUDGE KANE, Vice-President, in the Chair.

Letters were read:—

From A. L. Crelle, dated Berlin, 22d March, 1853, acknowledging the receipt of notice of his election as a member of the Society:—

From the Royal Danish Society of Sciences, dated Copenhagen, 27th Sept. 1852, accompanying a donation for the Library:—

From Lieut. J. M. Gilliss, dated Washington, 6th April, 1853, announcing a donation for the Library, made at his request, by the Council of the University of Chile.

The following donations were announced:—

FOR THE LIBRARY.

Archives du Muséum d'Histoire Naturelle: Tome VI. livr. 3, 4. Paris, 1852. 4to.—*From the Professors of the Museum.*

Det Kongelige Danske Videnskabernes Selskabs Skrifter. Femte Række. Historisk og Philosophisk Afdeling. Förste Bind. 1852. Kiobenhavn. 4to.—*From the Royal Danish Society of Sciences.*

Anales de la Universidad de Chile, correspondientes a los años 1843, hasta 1852. Santiago de Chile. 8vo.—*From the University of Ch ie.*

Transactions of the Royal Irish Academy. Vol. XXII. Part 3, Science: Part 4, Polite Literature. 1852-3. Dublin. 4to.—*From the Academy.*

Proceedings of the Royal Irish Academy, for the year 1851-2. Vol. V. Part 2. Dublin. 8vo.—*From the same.*

Journal of the Boston Society of Natural History; June, 1852. Boston. 8vo.—*From the Society.*

Proceedings of the Academy of Natural Sciences of Philadelphia: Vol. VI. No. 7. Jan. and Feb. 1853. Philadelphia. 8vo.—*From the Academy.*

Proceedings of the New Jersey Historical Society: Vol. V. No. 4. Newark, 1853. 8vo.—*From the Society.*

Journal of the Franklin Institute. 3d Series. Vol. XXV. No. 4. April, 1853. Philadelphia. 8vo.—*From the Institute.*

The African Repository. Vol. XXIX. Nos. 1, 2, 3. Jan. Feb. March, 1853. Washington. 8vo.—*From the American Colonization Society.*

The American Journal of the Medical Sciences. No. L. New Series. April, 1853. Philadelphia. 8vo.—*From Dr. Isaac Hays, Editor.*

The Medical Examiner and Record of Medical Science. New Series. Vol. VIII. Nos. 8 to 12: Vol. IX. Nos. 1 to 4. Philadelphia, 1852-3. 8vo.—*From Dr. F. G. Smith, Editor.*

The Medical News and Library: Vol. XI. No. 124. April, 1853. Philadelphia. 8vo.—*From Blanchard & Lea.*

The Astronomical Journal. No. 55. (Vol. III. No. 7), March 28, 1853. Cambridge. 4to.—*From Dr. B. A. Gould, jr., Editor.*

The Plough, the Loom and the Anvil. Vol. V. No. 4. April, 1853. New York and Philadelphia. 8vo.—*From F. G. Skinner, Editor.*

Thirty-fourth Annual Report of the Controllers of the Public Schools of the City and County of Philadelphia, for the year ending June 30, 1852. Philadelphia. 8vo.—*Donor unknown.*

FOR THE CABINET.

Specimens of Petrified Wood, altered by the heat of the conflagration at Barnum's Museum, in Philadelphia, Jan. 2, 1852: and

An Indian Arrow from Oregon.—*From Dr. Franklin Stewart.*

Dr. Boyé referred to his communication to the Society at its last meeting in regard to the decay of the articles deposited in the corner stone of the High School. He stated, that at the request of the Committee of the Controllers on Property, he had given the subject a further careful examination, and he is now satisfied, that the water must have got in from the outside by infiltration, first through the mortar into the cavity, and afterwards from this through the sealing wax, with which the glass stopper was secured. The corner stone formed the lowermost north-west stone of the foundation of the main

building, and consisted of a block of blue marble, in which a rectangular excavation had been made, which was closed on top by a marble slab sunk down into the stone, and secured by common mortar. The papers and coins had been deposited in a half gallon wide-mouthed glass jar with glass stopper, secured by ordinary sealing wax, and the jar laid down in a horizontal position, in direct contact with the bottom of the cavity. When opened, the cavity itself contained no water. The reasons which induce him to suppose that the water found its way in from the outside at an early period, either during or soon after the erection of the building, but subsequently again evaporated from the cavity in the stone, are:—1. Though the marble slab seems to have been well secured, there are evident signs of a gradual infiltration on all sides of the cavity, but particularly on one from a calcareous film deposited on it, most observable in the bottom of the chisel-grooves. 2. A thin white film of carbonate of lime deposited externally on one side of the jar, indicating a distinct water line. No such water line, however, was perceptible in the cavity of the stone, seeming to indicate that the infiltration and subsequent evaporation had been gradual, and the jar floating. 3. The entire decolorization and corrosion of the sealing wax outside the stopper, causing it to be loose and friable. This action is ascribed to the lime of the water. A portion of the sealing wax, which, during the sealing, had run into the jar and yet adhered to the stopper, was discolored on the outer surface, but perfectly fresh inside, and was found to consist of nothing but the ordinary resinous matters and vermillion (sulphuret of mercury), without oxide of lead or earthy matters. That outside left by incineration a little more ash, which effervesced with acids. 4. Traces of a thin layer of sealing wax having been secured in the molten state between the stopper and the neck of the jar, and of its subsequent removal by the infiltration, so that the stopper now fits further in the neck than when the jar was in the cavity. This is known by corresponding stains on both the ground surfaces of the joint. The water in the jar became almost entirely absorbed by the removal of the papers from it. What was left of it, would not filter clear, it had a feeble alkaline reaction on litmus, contained only traces of sulphuric acid and lime, did not blacken metallic silver, [the jar was not opened or examined till about ten days after its removal,] yielded at first no precipitate with nitrate of silver, but after some time a dark brown, and the solution assumed a dark blood red colour. The corrosion of the coins was therefore mainly ascribed to the sulphur in the glue or

sizing in the paper. The inside of the jar, where in contact with the papers, was also stained by a black film of sulphuret of lead from the oxide of lead contained in the glass.

The Society then proceeded to the stated business of the meeting, the balloting for candidates for membership.

All other business having been concluded, the ballot boxes were opened, and the following named gentlemen were declared, by the presiding officer, to be duly elected members of the Society.

Thomas L. Patterson, Chief Engineer of the Chesapeake and Ohio Canal.

Henry Grinnell, of New York.

John B. Biddle, M.D., of Philadelphia.

Stated Meeting, May 6.

Present, nine members.

Judge Kane, Vice-President, in the Chair.

Letters were read:—

From Henry Grinnell, dated New York, 19th April, 1853:—and from Dr. John B. Biddle, dated Philadelphia, 22d April, 1853,—severally acknowledging the receipt of notice of their election as members:—

From the Imperial Academy of Sciences at Vienna, dated 7th October, 1852, returning thanks for No. 47 of the Proceedings of this Society:—

From the Royal Prussian Academy of Sciences, dated Berlin, 11th November, 1852, accompanying a donation for the Library: and—

Copy of a letter from Dr. J. G. Grunert, Professor of Mathematics in the University of Greifswald, to Dr. J. G. Flügel, of Leipsic, dated Greifswald, 4th January, 1853, on transmitting to him two copies of a work written by Dr. Grunert, and requesting Dr. Flügel to present one of them to this Society.

The following donations were announced :—

FOR THE LIBRARY.

Abhandlungen der Königlichen Akademie der Wissenschaften zu Berlin, aus dem Jahre 1851. Berlin. 4to.—*From the Royal Academy of Sciences, Berlin.*

Monatsbericht der Königl. Preuss. Akademie der Wissenschaften zu Berlin. Jul. Aug. Sept. Oct. 1852. Berlin. 8vo.—*From the same.*

Monthly Notices of the Royal Astronomical Society: Vol. XIII. Nos. 4, 5. Feb. March, 1853. London. 8vo.—*From the Society.*

Journal of the Franklin Institute. 3d Series. Vol. XXV. No. 5. May, 1853. Philadelphia. 8vo.—*From the Institute.*

The African Repository: Vol. XXIX. No. 4. April, 1853. Washington. 8vo.—*From the American Colonization Society.*

The American Journal of Science and Arts. 2d Series. Vol. XV. No. 45. May, 1853. New Haven. 8vo.—*From Profs. Silliman and Dana, Editors.*

Ueber das Katoptrische und Dioptrische Beleuchtungssystem für Leuchtthürme. Von Johann August Grunert, Prof. zu Greifswald. Greifswald, 1852. 8vo.—*From the Author.*

On the probable number of the Native Indian Population of British America. (From the Proceedings of the Canadian Institute). By Capt. J. H. Lefroy, R. A. Toronto. 8vo.—*From the Author.*

A Digest of the Acts of Assembly and of the Ordinances of the Inhabitants and Commissioners of the District of Spring Garden, for the Government of that District. By Robert Bethell, Solicitor of the Corporation. Philadelphia, 1852. 8vo.—*From the Author.*

The Astronomical Journal. Nos. 56, 57. April 19, 25, 1853. Cambridge. 4to.—*From Dr. B. A. Gould, jr., Editor.*

The Medical Examiner and Record of Medical Science. New Series. Vol. IX. No. 5. May, 1853. Philadelphia. 8vo.—*From Drs. Smith and Biddle, Editors.*

The Medical News and Library. Vol. XI. No. 125. May, 1853. Philadelphia. 8vo.—*From Blanchard & Lea.*

On a New Apparatus for the determination of Carbonic Acid, and on Kemp's Thermostat. By Charles M. Wetherill, Ph. D. M.D.—*From the Author.*

Miscellanea Eruditæ Antiquitatis: curâ Jacobi Sponii, &c. &c. Lugduni, 1685. Folio.—*From Prof. J. F. Frazer.*

Antonii van Dale, Dissertationes IX. Antiquitatibus quin et Marmoribus, cum Romanis, tum potissimum Græcis illustrandis inservientes. Amstelodami, 1702. 4to.—*From the same.*

Judge Kane announced the decease of the Hon. John Banister Gibson, late Chief Justice of Pennsylvania, a member of this Society, who died on the 3d inst.

Mr. Edward Miller presented, for the Cabinet of the Society, a specimen of silicate of zinc, from the Saucon valley, in Lehigh county, Pennsylvania. The bed of this ore is extensively worked;—the product being sent to New York, for the manufacture of zinc paint.

A discussion ensued with regard to the deposits of this mineral, in which Mr. Miller, Prof. Frazer, Dr. Boyé and Mr. Trego took part. Dr. Boyé remarked that he had found the carbonate of zinc also in the above mentioned locality, and had ascertained it to be that mineral by chemical analysis.

Prof. Frazer, from the Committee on Dr. Kane's Expedition to the Arctic regions, reported that the services of a competent astronomical observer had been secured to accompany the expedition;—and presented a list of names as subscribers to a fund in aid of such services, amounting to $425, principally contributed by members of the Society.

The following resolution was offered by Mr. Trego, which, after being read and considered, was adopted:

Resolved, That the Curators be authorized to exchange with other societies or individuals, such duplicate or supernumerary specimens of coins, medals, minerals and other articles as they may deem unnecessary to be retained in the Cabinet of the Society, for such other specimens, of equal value, as they may consider desirable to be added to the Society's present collection;—and that the Curators be instructed to make report to the Society of their proceedings from time to time.

Stated Meeting, May 20.

Present, thirteen members.

Dr. Dunglison, Vice-President, in the Chair.

Drs. B. A. Gould, jr. and J. B. Biddle, recently elected members, were introduced and took their seats.

Letters were read:—

From Dr. J. G. Flügel, dated Leipsic, March 31, 1853, acknowledging the receipt of notice of his election as a member of this Society:—

From the Royal Society of London, dated Somerset House, Feb. 7, 1853, returning thanks for No. 47 of the Proceedings; and—

From Dr. Edward Jarvis, announcing a donation of a collection of pamphlets made by him to the Library of the Society.

The following donations were announced:—

FOR THE LIBRARY.

Transactions of the Royal Society of London, for the year 1852. Parts 1 and 2: with a list of the Council and Fellows of the Society. London. 4to.—*From the Society.*

Proceedings of the Royal Society of London. Vol. VI. Nos. 83 to 93. London. 8vo.—*From the same.*

Mémoires de l'Académie Royale des Sciences, des Lettres et des Beaux Arts de Belgique. Tome XXVI. Bruxelles, 1851. 4to.—*From the Belgian Academy of Sciences, &c.*

Mémoires Couronnés et Mémoires des Savants Etrangers, publiés par l'Académie Royale des Sciences, &c. de Belgique. Tome XXIV. 1850-1. Bruxelles. 4to.—*From the same.*

Mémoires Couronnés:—Collection in 8vo. Tome V. Première Partie. Bruxelles. 8vo.—*From the same.*

Bulletins de l'Académie Royale des Sciences, &c. de Belgique: Tome XVIII. 2ème Partie. Tome XIX. 1ère et 2ème Parties, 1852. Bruxelles. 8vo.—*From the same.*

Annuaire de l'Académie Royale des Sciences, &c. de Belgique, 1852. XVIII. Année. Bruxelles. 8vo.—*From the same.*

Annales de l'Observatoire Royal de Bruxelles: par A. Quetelet, Directeur. Tome VIII. 2ème Partie. Tome IX. Bruxelles, 1852. 4to.—*From the Observatory.*

Annuaire de l'Observatoire Royal de Bruxelles, par A. Quetelet, Directeur, 1852, XIX. Année: 1853, XX. Année. Bruxelles. 12mo.—*From the Author.*

Observations des Phénomènes Périodiques: 1849, 1850, 1851. Bruxelles. 4to.—*From the same.*

Sur les Tables de Mortalité et de Population. Par M. A. Quetelet, President de la Commission Centrale de Statisque. Bruxelles. 4to.—*From the same.*

Recherches sur les Médianes: par M. Ernest Quetelet, Officier du Génie, Ancien Eleve de l'Ecole Militaire. Bruxelles. 4to.—*From the Author.*

Ricerche Fisico-Matematiche sulla Deviazione del Pendolo dalla sua trajettoria: Memoria dell 'Abbate Francesco Zantedeschi, Professore di Fisica, &c. Padova, 1852. 4to.—*From the Author.*

Rapport sur les Recherches Geologiques, executées par ordre du Gouvernement pendant l'année 1852, dans la Néerlande. Harlem. 4to.—*Donor unknown.*

Proceedings of the American Antiquarian Society, in Worcester. October, 23, 1852. 8vo.—*From the Society.*

Battle of Lake Erie:—A Discourse delivered before the Rhode Island Historical Society, on the evening of Monday, February 6, 1852. By Usher Parsons. Providence. 8vo.—*From the Society.*

A Collection of Pamphlets, 54 in number, comprising Public Documents of the State of Massachusetts and of the City of Boston, relative to Education, Charitable Institutions, Pauperism, Prisons, Rail-roads, Banks, Insurance, and other statistical subjects.—*From Dr. Edward Jarvis.*

The Plough, the Loom and the Anvil. Vol. V. No. 5. May, 1853. New York and Philadelphia. 8vo.—*From F. G. Skinner, Editor.*

Access to an Open Polar Sea in connection with the Search after Sir John Franklin and his companions: by E. K. Kane, M.D. Past Assistant Surgeon in the U. S. Navy. (Read before the American Geographical and Statistical Society at its regular monthly meeting, Dec. 14, 1852.) New York, 1852. 8vo.—*From the Author.*

The minutes of the officers and council at their meeting on the 13th inst. were read.

Judge Kane, on the part of Dr. E. K. Kane, communicated the thanks of the latter for the aid extended to him by the Society, in relation to the expedition about to sail under his command to the Arctic regions. The preparations having been nearly completed, the vessel will probably be at sea in the course of the next ten days.

Stated Meeting, June 17.

Present, twelve members.

Dr. Dunglison, Vice-President, in the Chair.

Dr. Robert M. Bird, a recently elected member, was introduced and took his seat.

Letters were read:—

From the Secretary of l'Ecole des Mines, dated Paris, 4th January, 1853, announcing the transmission of a donation for the Society's Library: and—

A circular letter, dated City Library, New Bedford, May 21, 1853, accompanying the first Annual Report of the Trustees of said Library, and expressing a desire to correspond with other literary and scientific institutions.

The following donations were announced:—

FOR THE LIBRARY.

Memorie dell' I. R. Instituto Lombardo di Scienze, Lettere ed Arti. Vol. III. Milano, 1852. 4to.—*From the Royal Lombardy Institute of Sciences, Letters and Arts.*

Giornale dell' I. R. Instituto Lombardo, &c. Tomo VI. VII. VIII. Milano, 1846–1847. 8vo.—*From the same.*

Giornale dell' I. R. Instituto Lombardo, &c. e Biblioteca Italiano. Nuova Serie. Fascicoli I.–XVIII. Milano, 1847–1852. 4to.—*From the same.*

Monthly Notices of the Royal Astronomical Society. Vol. XIII. No. 6. April 8, 1853. London. 8vo.—*From the Society.*

Proceedings of the Academy of Natural Sciences of Philadelphia. Vol. VI. No. 8. Philadelphia. 8vo.—*From the Academy.*

Celebration by the Historical Society of Pennsylvania, of the 170th Anniversary of the Landing of William Penn:—Oration by Robert T. Conrad, Esq., and Proceedings at the Dinner. Nov. 8, 1852. Philadelphia. 8vo.—*From the Society.*

Proceedings of the Boston Society of Natural History: March, April, 1853. Boston. 8vo.—*From the Society.*

Descriptions of New Species of Achatinella, from the Sandwich Islands. By Dr. W. Newcomb, of Honolulu, Cor. Memb. N. Y. Lyc. Nat. Hist. May, 1853. 8vo.—*From the N. Y. Lyceum of Nat. History.*

The African Repository: Vol. XXIX. No. 5. May, 1853. Washington. 8vo.—*From the American Colonization Society.*

Annales des Mines: V. Série. Tome II. 5 livr. de 1852. Paris. 8vo.—*From the Engineers of l'Ecole des Mines.*

Journal of the Franklin Institute: 3d Series. Vol. XXV. No. 6. June, 1852. Philadelphia. 8vo.—*From the Institute.*

On the Electrotyping Operations of the United States Coast Survey. By George Mathiot, Electrotypist. (Am. Jour. Sci. and Arts. Vol. XV. 1853). New Haven. 8vo.—*From the U. S. Coast Survey.*

First Annual Report of the Trustees of the New Bedford City Library. New Bedford. 8vo.—*From the Trustees.*

Historia de Mejico, desde los primeros movimientos que prepararon su independencia en el año de 1808, hasta la epoca presente. Por Don Lucas Alaman. Parte Segunda. Tomo V. Mexico, 1852. 8vo.—*From the Author.*

The Slave Trade, domestic and foreign: Why it exists and how it may be extinguished. By H. C. Carey. Philadelphia, 1853. 8vo.—*From the Author.*

Mathematics Simplified and made attractive; or the Laws of Motion explained:—With a Port Folio of Diagrams. By Thomas Fisher. Philadelphia, 1853.—*From the Author.*

The Medical Examiner. New Series. Vol. IX. No. 6. June, 1853. Philadelphia. 8vo.—*From Drs. Smith and Biddle, Editors.*

The Medical News and Library. Vol. IX. No. 126. June, 1853. Philadelphia. 8vo.—*From Blanchard & Lea.*

Report of the Eastern Lunatic Asylum in the City of Williamsburg, Virginia, 1852-3. Richmond. 8vo.—*From Dr. John M. Galt.*

Report of the Board of Directors of the Pennsylvania Institution for the Deaf and Dumb, for 1852. Philadelphia. 8vo.—*From James J. Barclay, Esq.*

Education: An Address delivered before the Linnean Association of Pennsylvania College, Gettysburg, April 18, 1853. By A. Webster, D.D., of Baltimore, Maryland. Gettysburg. 8vo.—*From Prof. M. L. Stoever.*

The Influence of the Bible on Literature: A Discourse delivered before the Bible Society of Pennsylvania College and Theological Seminary, Gettysburg, April 17, 1853. By J. A. Seiss, A.M., of Baltimore, Md. Gettysburg. 8vo.—*From the same.*

The Astronomical Journal: Vol. III. Nos. 58, 59. May 18, June 10, 1853. Cambridge. 4to.—*From Dr. B. A. Gould, jr., Editor.*

On motion of Mr. Trego, the City Library of New Bedford was ordered to be placed on the list of correspondents of this Society.

A list of the Special Committees of the Society which have not yet made final reports was read over, and a number of said committees were, on motion, discharged;—to sundry others notice was directed to be given that reports from them are desired by the Society.

Dr. Ruschenberger was appointed in place of Dr. W. E. Horner, deceased, to prepare an obituary notice of the late Dr. S. G. Morton.